Mael-Tecnost SRL, based in L’Aquila, Italy, is a leading Italian manufacturer of lotto-toto lottery terminals. In an attempt to save costs, the company changed the material used in packaging these terminals for shipping from ETHAFOAM® brand polyethylene foam plank to expanded polystyrene (EPS). It did not take long for Mael-Tecnost to discover that there is more to the total cost of packaging than the price of material. As a result of the switch to EPS, damage to the machines during transport increased by 12 percent. In turn, the high damage rate resulted in extra insurance costs. The company calculated it would lose several million euros on its annual domestic shipments of 12,000 units.

“This is a perfect example of what we call the ‘Foamberg,’” said Stefan Koenig, Dow Performance Foams account manager. “Material cost is evident, but those costs that lie beneath the surface can be much more expensive, which is why we help our customers to comprehend their total packaging costs.”

With support from Dow Performance Foams, Tecma-Grupo Sogimi, a member of the Performance Foams Global Authorized Fabricator Network located in Italy helped Mael-Tecnost analyze the true total cost of packaging. Utilizing tools developed by Dow, such as ETHACALC® Millennium software, Dow’s drop test software and total cost analysis assistance, Tecma demonstrated to its customer how it could reduce packaging and shipping costs while using superior packaging material – ETHAFOAM Nova foam.

ETHAFOAM Nova foam is a strong, resilient, low density (1.7 pcf /24 kg/m³), closed-cell foam. It is ideally suited as a component material in products requiring shock absorption and vibration dampening, and as a material for cushioning components in packaging applications for impacts or loadings up to 1.5 psi/10 kPa.

“Tecma provided us with a perfect solution of fabricated ETHAFOAM Nova foam, which guarantees safe transport and efficient supply to our customers,” said Stefano Ruzzi, packaging and quality manager at Mael-Tecnost.
Davide Botti, Mael-Tecnost purchasing manager, agreed, saying, “Tecma’s total cost analysis enabled us to identify a high cost saving potential which we realized with a fabricated ETHAFOAM foam solution.”

The return to ETHAFOAM packaging resulted in an 85 percent reduction in product damage, equaling savings of nearly 2 million euros per year. An additional annual savings of 30,000 euros in packaging costs was also realized, due to the elimination of insurance cost, reduction in cardboard carton expenses, and savings on obsolete EPS-related tooling.

Excited about the solutions provided by Tecma and Dow Performance Foams, Mael-Tecnost committed to analyzing a new export product line using the Dow total cost approach to reveal even more cost savings.

“Analyzing OEM projects under a total cost approach work process utilizing solution tools from Dow Performance Foams is highly appreciated by our customers,” said Giovanni Avanzini, Tecma branch manager. “This makes us the best choice for designed packaging solutions in the market for high-value goods.”